BRÅKET

Information om seminarier och högre undervisning i matematiska ämnen i Stockholmsområdet

BRÅKET

Disputation i datalogi

Christopher Johansson disputerar vid KTH på avhandlingen *An Attractor Memory Model of Neocortex* torsdagen den 26 oktober kl. 10.15. Se sidorna 5–6.

Money, jobs: Se sidorna 9–10.

SEMINARIER

Fr 10–20 kl. 11.00–12.00. Joint CIAM and Optimization and Systems Theory Seminar. Professor Karl Johan Åström, Institutionen för reglerteknik, Lunds Tekniska Högskola: *Cykelåkning från ett reglertekniskt perspektiv.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 30 sidan 5.

Fr 10–20 kl. 13.00. Licentiatseminarium i matematik. Martin Hamrin presenterar sin licentiatavhandling: *Higher derivations and their invariant varieties.* Opponent: **Rolf Källström.** Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket. Se Bråket nr 31 sidan 11.

Fr 10–20 kl. 13.15–14.15. Graduate Student Seminar. Clemens Förster, Universität Stuttgart: *Trapped modes in elastic media.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 31 sidan 7.

Fr 10–20 kl. 14.00. Gästföreläsning i filosofi. Professor Daniel Birnbaum föreläser utifrån sin nya bok: *Chronology — en essä om tid.* Rum F389, Filosofiska institutionen, SU.

Ti 10–24 kl. 9.00–10.00. Seminar regarding European Commission's 7th framework programme: *Research financing: we can help you.* Sal D3, KTH, Lindstedtsvägen 5, b.v. Förhandsanmälan krävs. Se Bråket nr 31 sidan 9.

Ti 10–24 kl. 14.00–15.00. Mittag-Leffler Seminar. Michael Shapiro, MSU, East Lansing: *Cluster algebras and triangulated surfaces.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 7.

On 10–25 kl. 10.00–11.00. Presentation av examensarbete i matematik. Fatima Masic: *Fuchsiska ekvationer av ordning* 2. Handledare: **Rikard Bøgvad.** Sal 21, hus 5, Matematiska institutionen, SU, Kräftriket. Se sidan 4.

Seminarier (fortsättning)

On 10−25 kl. 10.00−11.45. Logikseminariet Stockholm-Uppsala. Per Martin-Löf: *Sheaf models of type theory (part six).* (Fortsättning från seminariet den 11 oktober.) Sal 16, hus 5, Matematiska institutionen, SU, Kräftriket.

On 10−25 kl. 10.15−12.00. Kombinatorikseminarium. Alexander Engström, KTH: *Higher connectivity of graph coloring complexes.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 4.

On 10−25 kl. 13.00. Seminarium i statistik. Daniel Thorburn: *Survey sampling, correction for non-response and optimal selection probabilities.* Sal B705, Statistiska institutionen, SU, Universitetsvägen 10B, plan 7, Frescati. Se sidan 7.

On 10−25 kl. 13.15−14.15. Seminarium i analys och dynamiska system. Victor Ivrii, Toronto: *Magnetic Schrödinger operator: Geometry, classical and quantum dynamics, and spectral asymptotics.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 31 sidan 10.

On 10−25 kl. 15.00−15.45. Seminarium i matematisk statistik. Douglas Wiens, University of Alberta, Canada: *Robust prediction and design in spatial studies.* Rum 306 (Cramérrummet), hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 5.

On 10−25 kl. 16.00−17.00. KTH/SU Mathematics Colloquium. Arnfinn Laudal, Universitetet i Oslo: *Dynamics of time-spaces. Chronos and the Demiurge.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Kaffe/te serveras kl. 15.30 i pausrummet, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 4. Se Bråket nr 31 sidan 8.

To 10−26 kl. 11.00−12.00. Mittag-Leffler Seminar. Sergey Natanzon, Independent University of Moscow: *Hurwitz numbers of seamed surfaces.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 3.

To 10−26 kl. 14.00−15.00. Mittag-Leffler Seminar. Francesco Vaccarino, Politecnico di Torino: *Symmetric products, moduli spaces of linear representations and the Hilbert scheme of points.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 8.

To 10−26 kl. 15.30−16.30. Mittag-Leffler Seminar. David M. R. Jackson, University of Waterloo: *A proof of Faber's top intersection number conjecture, for all genera and a small number of points.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 8.

Fr 10−27 kl. 11.00−12.00. Joint CIAM and Optimization and Systems Theory Seminar. John S. Baras, Institute for Systems Research, Electrical and Computer Engineering Department and Computer Science Department, University of Maryland, USA: *Autonomic wireless networks and computational problems on graphs.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 4.

Fr 10−27 kl. 13.15−14.15. Graduate Student Seminar. Michael Björklund, Matematik, KTH: *Ergodic theory of Infinite Measure Spaces I.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 31 sidan 9.

Seminarier (fortsättning)

Må 10−30 kl. 10.15. Licentiatseminarium i numerisk analys. Mohammad Motamed presenterar sin licentiatavhandling: *Phase Space Methods for Computing Creeping Rays.* Opponent: **Universitetslektor Sverker Holmgren,** Institutionen för informationsteknologi, Uppsala universitet. Sal D41, KTH, Lindstedtsvägen 17, 1 tr. Se sidorna 6−7.

On 11−01 kl. 13.15−14.15. Seminarium i analys och dynamiska system. Eero Saksman, Jyväskylä: *Title to be announced.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

On 11−01 kl. 15.15−16.00. Seminarium i numerisk analys. Fredrik Bengzon, Umeå universitet: *Adaptive finite element methods for multiphysics problems.* Rum 4523, KTH CSC, Lindstedtsvägen 5, plan 5.

To 11−02 kl. 10.15. Docentföreläsning i Electromagnetic Engineering. Lars Jonsson: *Dynamics of a soliton in an external potential. What is a soliton and how does it move?* Seminarierummet, Teknikringen 33, KTH. Se sidan 9.

To 11−02 kl. 19.00. Populärvetenskaplig föreläsning i fysik. Professor Per-Erik Tegnér, Fysik, SU: *Det tyngsta grundämnet: Om sökandet efter det tyngsta grundämnet.* Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se sidan 5.

Fr 11−03 kl. 13.15−14.15. Graduate Student Seminar. Axel Hultman, Matematik, KTH: *Title to be announced.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MITTAG-LEFFLER SEMINAR

Sergey Natanzon:
Hurwitz numbers of seamed surfaces

Abstract: A seamed surface is a two-dimensional complex from modern models of mathematical physics [1]. We extend the definition of Hurwitz numbers on seamed surfaces and we prove that these Hurwitz numbers form a system of correlators for a Klein topological field theory.

Klein topological field theories describe open-closed topological string theories with oriented and non-oriented world-sheets. They correspond one-to-one to structure algebras [2]. We describe the structure algebra corresponding to n-degree Hurwitz numbers of seamed surfaces. The non-trivial part of this algebra is an associative algebra on a vector space that has bichromatic graphs with n edges as a basis. We prove that this algebra is isomorphic to the algebra of intertwining operators for the representation of the symmetric group S_n in the set of all partitions of n elements to batches.

This is joint work with A. V. Alexeevski.

References:
1. M. Khovanov, L. Rozansky, *Topological Landau-Ginzburg models on a world-sheet foam.* 22 p., arXiv: hep-th/0404189.
2. A. Alexeevski, S. Natanzon, *Noncommutative two-dimensional topological field theories and Hurwitz numbers for real algebraic curves.* 66 p., Preprint MPIM 2003-115.

Tid och plats: Torsdagen den 26 oktober kl. 11.00−12.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

PRESENTATION AV EXAMENSARBETE I MATEMATIK

Fatima Masic:
Fuchsiska ekvationer av ordning 2

Handledare: **Rikard Bøgvad.**

Sammanfattning: Ordinära differentialekvationer i det komplexa talplanet med bara en speciell sorts snälla, "reguljära", singulariteter överallt (inklusive i oändligheten) kallas Fuchsiska.

Jag kommer att presentera dessa och bl.a. beskriva en klassisk sats av Hiene och Stieltjes som ger en beskrivning av sådana ekvationer av ordning 2 med polynom av grad n som lösningar och kritiska punkter till en multivärd n-variabelfunktion, den s.k. mastersfunktionen.

Tid och plats: Onsdagen den 25 oktober kl. 10.00 – 11.00 i sal 21, hus 5, Matematiska institutionen, SU, Kräftriket.

KOMBINATORIKSEMINARIUM

Alexander Engström:
Higher connectivity of graph coloring complexes

Abstract: The Hom-complexes were introduced by Lovász to study topological obstructions to graph colorings. It was conjectured by Babson and Kozlov, and proved by Čukić and Kozlov, that $\text{Hom}(G, K_n)$ is $(n - d - 2)$-connected, where d is the maximal degree of a vertex of G.

A greedy algorithm colors a graph by successively choosing maximal independent sets. Let $\dot{\chi}(G)$ be the maximal number of colors it uses for the graph G. Then $\chi(G) \leq \dot{\chi}(G) \leq d + 1$.

We give a short proof of that $\text{Hom}(G, K_n)$ is $(n - \dot{\chi}(G) - 1)$-connected.

Tid och plats: Onsdagen den 25 oktober kl. 10.15 – 12.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

JOINT CIAM AND
OPTIMIZATION AND SYSTEMS THEORY SEMINAR

John S. Baras:
Autonomic wireless networks
and computational problems on graphs

Abstract: We describe several problems of direct industrial relevance to mobile wireless autonomic networks. These include collaborative robotics, design of protocols, design of networks, trust management, network information assurance. We demonstrate that these problems lead to new and interesting computational problems on dynamic (i.e. time varying) graphs. We describe the details of the structure of our solutions in the following specific problems: stochastic algorithms for collaborative robotics, network tomography and Radon transform on graphs for network forensics, trust propagation and computation as iterated algorithms on graphs and path problems on ordered semirings. We conclude with future research directions and problems in this area.

Tid och plats: Fredagen den 27 oktober kl. 11.00 – 12.00 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

SEMINARIUM I MATEMATISK STATISTIK

Douglas Wiens:
Robust prediction and design in spatial studies

Abstract: I consider robust methods for the construction of sampling designs in spatial studies. The designs are robust against mis-specified regression responses and are tailored for possible use with predictors which are minimax robust against mis-specified variance/covariance structures. The loss function is based on the mean squared error of the predicted values. This is maximized, analytically, over a neighbourhood quantifying the departures from the fitted linear regression response. This maximum is then minimized numerically — by simulated annealing, or sequentially — in order to obtain the optimal designs.

Tid och plats: Onsdagen den 25 oktober kl. 15.00 – 15.45 i rum 306 (Cramérrummet), hus 6, Matematiska institutionen, SU, Kräftriket.

POPULÄRVETENSKAPLIG FÖRELÄSNING I FYSIK

Per-Erik Tegnér:
Det tyngsta grundämnet:
Om sökandet efter det tyngsta grundämnet

Sammanfattning: Länge var uran det tyngsta kända grundämnet. I och med upptäckten av radioaktiviteten och atomkärnan för cirka 100 år sedan har man i laboratorier lyckats skapa allt tyngre atomkärnor. I föredraget diskuterar jag om och varför det finns en gräns för hur tungt ett grundämne kan bli och beskriver hur experimenten, som utförs för att skapa tyngre grundämnen, går till.

Tid och plats: Torsdagen den 2 november kl. 19.00 i Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum.

DISPUTATION I DATALOGI

Christopher Johansson

disputerar på avhandlingen

An Attractor Memory Model of Neocortex

torsdagen den 26 oktober 2006 kl. 10.15 i sal F2, KTH, Lindstedtsvägen 28, b.v. Till opponent har utsetts *professor Stefano Fusi,* ETH/Universität Zürich, Schweiz.

Abstract of the thesis

This thesis presents an abstract model of the mammalian neocortex. The model was constructed by taking a top-down view on the cortex, where it is assumed that cortex to a first approximation works as a system with attractor dynamics. The model deals with the processing of static inputs from the perspectives of biological mapping, algorithmic, and physical implementation, but it does not consider the temporal aspects of these inputs. The purpose of the model is twofold: Firstly, it is an abstract model of the cortex and as such it can be used to evaluate hypotheses about cortical function and structure. Secondly, it forms the basis of a general information processing system that may be implemented in computers. The characteristics of this model are studied both analytically and by simulation experiments, and we also discuss its parallel implementation on cluster computers as well as in digital hardware.

The basic design of the model is based on a thorough literature study of the mammalian cortex's anatomy and physiology. We review both the layered and columnar structure of cortex and also the long- and short-range connectivity between neurons. Characteristics of cortex that define its computational complexity such as the time-scales of cellular processes that transport ions in and out of neurons and give rise to electric signals are also investigated. In particular we study the size of cortex in terms of neuron and synapse numbers in five mammals; mouse, rat, cat, macaque, and human. The cortical model is implemented with a connectionist type of network where the functional units correspond to cortical mini-columns and these are in turn grouped into hypercolumn modules. The learning-rules used in the model are local in space and time, which makes them biologically plausible and also allows for efficient parallel implementation. We study the implemented model both as a single- and multi-layered network. Instances of the model with sizes up to that of a rat-cortex equivalent are implemented and run on cluster computers in 23 % of real time. We demonstrate on tasks involving image-data that the cortical model can be used for meaningful computations such as noise reduction, pattern completion, prototype extraction, hierarchical clustering, classification, and content addressable memory, and we show that also the largest cortex equivalent instances of the model can perform these types of computations. Important characteristics of the model are that it is insensitive to limited errors in the computational hardware and noise in the input data. Furthermore, it can learn from examples and is self-organizing to some extent. The proposed model contributes to the quest of understanding the cortex and it is also a first step towards a brain-inspired computing system that can be implemented in the molecular scale computers of tomorrow.

The main contributions of this thesis are: (i) A review of the size, modularization, and computational structure of the mammalian neocortex. (ii) An abstract generic connectionist network model of the mammalian cortex. (iii) A framework for a brain-inspired self-organizing information processing system. (iv) Theoretical work on the properties of the model when used as an autoassociative memory. (v) Theoretical insights on the anatomy and physiology of the cortex. (vi) Efficient implementation techniques and simulations of cortical sized instances. (vii) A fixed-point arithmetic implementation of the model that can be used in digital hardware.

LICENTIATSEMINARIUM I NUMERISK ANALYS

Mohammad Motamed

presenterar sin licentiatavhandling:

Phase Space Methods for Computing Creeping Rays

Opponent: **Universitetslektor Sverker Holmgren,** Institutionen för informationsteknologi, Uppsala universitet.

Abstract: This thesis concerns the numerical simulation of creeping rays and their contribution to high frequency scattering problems.

Creeping rays are a type of diffracted rays which are generated at the shadow line of the scatterer and propagate along geodesic paths on the scatterer surface. On a perfectly conducting convex body, they attenuate along their propagation path by tangentially shedding diffracted rays and losing energy. On a concave scatterer, they propagate on the surface and importantly, in the absence of dissipation, experience no attenuation. The study of creeping rays is important in many high frequency problems, such as design of sophisticated and conformal antennas, antenna coupling problems, radar cross section (RCS) computations, and control of scattering properties of metallic structures coated with dielectric materials.

First, assuming the scatterer surface can be represented by a single parameterization, we propose a new Eulerian formulation for the ray propagation problem by deriving a set of *escape* partial differential equations in a three-dimensional phase space. The equations are solved on a fixed computational grid using a version of fast marching algorithm. The solutions to the equations contain information about all possible creeping rays. This information includes the phase and amplitude of the ray field, which are extracted by a fast post-processing. The advantage of this formulation over the standard Eulerian formulation is that we can compute multivalued solutions corresponding to crossing rays. Moreover, we are able to control the accuracy everywhere on the scatterer surface and suppress the problems with the traditional Lagrangian formulation. To compute all possible creeping rays corresponding to all shadow lines, the algorithm is of computational order $\mathcal{O}(N^3 \log N)$, with N^3 being the total number of grid points in the computational phase space domain. This is expensive for computing the wave field for only one shadow line, but if the solutions are sought for many shadow lines (for many illumination angles), the phase space method is more efficient than the standard methods such as ray tracing and methods based on the eikonal equation.

Next, we present a modification of the single-patch phase space method to a multiple-patch scheme in order to handle realistic problems containing scatterers with complicated geometries. In such problems, the surface is split into multiple patches where each patch has a well-defined parameterization. The escape equations are solved in each patch, individually. The creeping rays on the scatterer are then computed by connecting all individual solutions through a fast postprocessing.

We consider an application to mono-static radar cross section problems, where creeping rays from all illumination angles must be computed. The numerical results of the fast phase space method are presented.

Tid och plats: Måndagen den 30 oktober kl. 10.15 i sal D41, KTH, Lindstedtsvägen 17, 1 tr.

MITTAG-LEFFLER SEMINAR

Michael Shapiro:
Cluster algebras and triangulated surfaces

Abstract: In this talk we discuss cluster algebras associated with triangulations of two-dimensional surfaces and establish their basic properties. In particular, we show that seeds are determined by clusters. Another application is the expression for denominators of cluster monomials in terms of "modified" intersection numbers of arcs of triangulations.

This is a joint work with S. Fomin and D. Thurston.

Tid och plats: Tisdagen den 24 oktober kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

SEMINARIUM I STATISTIK

Daniel Thorburn: Survey sampling, correction
for non-response and optimal selection probabilities

Abstract: Daniel Thorburn tells about the Baltic-Nordic workshop in survey sampling in Ventspils and a panel discussion in Örebro and about his own contributions.

Tid och plats: Onsdagen den 25 oktober kl. 13.00 i sal B705, Statistiska institutionen, SU, Universitetsvägen 10B, plan 7, Frescati.

MITTAG-LEFFLER SEMINAR

Francesco Vaccarino:
Symmetric products, moduli spaces of linear representations and the Hilbert scheme of points

Abstract: Let K be an infinite field and let R be a commutative K-algebra. There are at least three schemes which are directly connected to the representation theory of R, namely:

- The coarse moduli space parameterizing n-dimensional linear representations of R up to basis change.
- The Hilbert scheme of n-points whose K-points parameterize ideals of codimension n of R.
- The symmetric product that parameterizes multiplicative polynomial mappings from R to K-algebras that are homogeneous of degree n.

These schemes can be connected by morphisms: the first one is given by the composition of a representation with the determinant, the second one is the generalization of the Hilbert-Chow morphism called the Grothendieck-Deligne norm map. The Hilbert scheme is isomorphic to the quotient by the general linear group of an open subscheme of the tuples of matrices times K^n, and the third morphism is the one induced by the projection on matrices.

We analyse these morphisms showing in particular that the symmetric product can be embedded in the above moduli space of linear representations as a closed subscheme. When $\mathrm{char}\,\mathbb{K} = 0$, we prove that the above embedding is an isomorphism between the symmetric product and the moduli space of linear representations. When the characteristic is positive, we find an isomorphism at the level of varieties. Using this information we give some insight on the Hilbert-Chow (Grothendieck-Deligne) morphism.

Tid och plats: Torsdagen den 26 oktober kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

MITTAG-LEFFLER SEMINAR

David M. R. Jackson:
A proof of Faber's top intersection number conjecture, for all genera and a small number of points

Abstract: Degeneration can be used to express a certain geometrical quantity as the solution of a partial differential equation that is akin to a join-cut equation. At the same time, localization may be used to express the geometrical quantity as a sum over a class of vertex-weighted trees by a top intersection number at the root vertex and double Hurwitz numbers of the other vertices, and edge-weighted by positive integers. This provides an implicit system for determining the top intersection numbers. I shall show how this system can be used to prove the result for a small number of points.

At the moment, the proof is limited by our lack of knowledge of series for the double Hurwitz numbers in general. However, there is tantalizing information suggesting that, by altering the combinatorics, we may require only the simplest double Hurwitz numbers, numbers that we already know. However, this is at the cost of making the combinatorics more complex and, perhaps, inaccessible.

This is joint work with Ian Goulden and Ravi Vakil.

Tid och plats: Torsdagen den 26 oktober kl. 15.30 – 16.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

DOCENTFÖRELÄSNING I ELECTROMAGNETIC ENGINEERING

Lars Jonsson:
Dynamics of a soliton in an external potential.
What is a soliton and how does it move?

Abstract: This lecture will be a short journey into the wide subject of solitons, or solitary waves as they are also called. Solitons are a nonlinear wave phenomenon. They have been intensively studied during the last 10 – 15 years. The interest in these waves is partially due to the appearance of solitons in optics, where they can be used as information carriers in optical fibers. But solitons have also excited interest far outside the optical soliton community. Solitons appear in a multitude of other fields. For example, in the theory of Bose-Einstein condensates; certain plasma and water waves can be described as solitons; solutions to a mean field model describing some classes of stars can be shown to be solitons etc.

At the first stop of our journey we will discuss a few basic models that have soliton solutions. We will then examine some of their basic properties. Next stop is at applications. Here we will see how solitons have made their entry into some of the fields, what they are describing, and how they are used. At the third and last stop we will visit some recent research results on solitons in an external potential. One nice property that has been shown is that, under the right circumstances, the dynamics of solitons is essentially Newtonian. This means that some solitons can be considered as if they were billiard balls in a landscape of valleys and hills.

The recent research results mentioned in this lecture have been carried out during my time as a postdoctoral fellow at the University of Toronto, and at ETH, Zürich.

Tid och plats: Torsdagen den 2 november kl. 10.15 i seminarierummet, Teknikringen 33, KTH.

MONEY, JOBS

Columnist: Eric Emtander, Department of Mathematics, SU. E-mail: erice@math.su.se.

Info = information. This will be given and repeated until obsolete. Rely on other sources as well.
BBKTH = Bulletin Board at the Department of Mathematics, KTH.
BBSU = Bulletin Board at the Department of Mathematics, SU.
The following information, with links, is also available at http://www.math.su.se/~erice/mj.html.
Unless stated otherwise, a given date is the last date (e.g. for applications), and the year is 2006. A number without an explanation is a telephone number.

Standard information channels

1. A channel to information from Vetenskapsrådet: http://www.vr.se/naturteknik/index.asp.

2. A channel to information from the European Mathematical Society: http://www.emis.de.

3. A channel to information from the American Mathematical Society: http://www.ams.org.

4. KTH site for information on funds: http://www.kth.se/aktuellt/stipendier.

5. Stockholm University site for information on funds: http://www2.su.se/forskning/stipendier/databas.php3.

6. Umeå site for information on funds: http://www.umu.se/umu/aktuellt/stipendier_fond_anslag.html.

7. Job announcement site: http://www.maths.lth.se/nordic/Euro-Math-Job.html. This is run by the European Mathematical Society.

8. Stiftelsen för internationalisering av högre utbildning och forskning (STINT) site for information on funds: http://www.stint.se.

9. Nordisk Forskerutdanningsakademi (NorFA) site for information on funds: http://www.norfa.no.

10. Svenska institutet (SI) site for information on funds: http://www.si.se.

New information

Jobs to apply for

11. Lunds universitet söker en doktorand i matematisk statistik med tillträde den 1 januari 2007. Sista ansökningsdag är den 20 november. Web-info: http://www3.lu.se/info/lediga/admin/document/1296-06.pdf.

12. Högskolan Dalarna och Statens Väg- och transportforskningsinstitut (VTI) söker tillsammans dels en universitetslektor i statistik (tillsvidareanställning), dels en biträdande universitetslektor i statistik (tjänsten är tidsbegränsad till fyra år med möjlighet till förlängning). Båda tjänsterna är placerade i Borlänge och har sista ansökningsdag den 15 december. Web-info: http://www.du.se/templates/NewsPage____6454.aspx respektive http://www.du.se/templates/NewsPage____6453.aspx.

Old information

Money to apply for

13. Från Knut och Alice Wallenbergs Stiftelse ställs anslag till rektors för KTH förfogande för att "i första hand användas till bidrag för sådana resor, som bäst befordrar ett personligt vetenskapligt utbyte till gagn för svensk forskning. Bidrag skall främst beviljas till yngre forskare. Medel kan även — efter rektors bedömning — undantagsvis disponeras för utländska gästforskare." Bidrag kan sökas under hela året. Info: Anette Nyström, 08-790 70 59. Web-info: se punkt 4 ovan.

14. Från Vetenskapsrådet kan konferensbidrag sökas med huvudsyftet att göra det möjligt att inbjuda framstående utländska föredragshållare. Ansökan skall vara inkommen senast två månader innan konferensen äger rum. Ansökningar behandlas ej mellan den 15 juni och den 15 augusti. Info: Mona Berggren, 08-546 44 246, e-post Mona.Berggren@vr.se. Web-info: http://www.vr.se/forskning/bidrag/ovrbidrag.jsp?resourceId=822&languageId=1.

15. Stiftelsen för internationalisering av högre utbildning och forskning (STINT) erbjuder korttidsstipendier: 2 veckor till 3 månader långa besök. Stipendierna är avsedda för besök vid utländska institutioner, alternativt för att bjuda in en utländsk forskare. De kan ej sökas av doktorander. Ansökan kan göras löpande under året. Info: Agneta Granlund, 08-671 19 95, e-post agneta.granlund@stint.se. Web-info: http://www.stint.se/index.php?articleId=34.

16. Från Vetenskapsrådet kan resebidrag sökas av främst disputerade forskare, av doktorander i undantagsfall. Bidrag kan bland annat sökas för konferensdeltagande (ej posterpresentation), för att representera Sverige i viktiga sammanhang samt för att bjuda in utländska gästforskare. Bidrag för resa till internationellt forskningssamarbete kan också få finansiering. Ansökan skall vara inkommen senast två månader innan resan äger rum. Ansökningar behandlas ej mellan den 15 juni och den 15 augusti. Info: Mona Berggren, 08-546 44 246, e-post Mona.Berggren@vr.se. Web-info: http://www.vr.se/forskning/bidrag/ovrbidrag.jsp?resourceId=665&languageId=1.

17. Wenner-Gren Stiftelserna utlyser gästföreläsaranslag som ger institutioner bidrag till att bjuda in utländska gästföreläsare m.m. Ansökan kan inlämnas när som helst under året. Web-info: http://www.swgc.org/.

18. Vetenskapsrådets utbildningsvetenskapliga kommitté utlyser konferens- och resebidrag för i första hand unga och/eller nydisputerade forskare. Bidrag kan sökas när som helst under året. Web-info: http://www.vr.se/omvr/organisation/sida.jsp?unitId=24.

19. Svenska institutet ger bidrag för utbildning och forskning utomlands. Sista ansökningsdag varierar för olika länder. Web-info: Se punkt 10 ovan.

Jobs to apply for

20. Uppsala universitet söker en universitetslektor i matematik, särskilt finansiell matematik. Den sökande skall kunna undervisa på svenska eller engelska. Innehavaren av tjänsten skall kunna undervisa på både svenska och engelska inom två år. Sista ansökningsdag är den 24 oktober. Web-info: http://www.personalavd.uu.se/ledigaplatser/1867unlekt.html.

21. Lunds universitet söker två biträdande universitetslektorer i matematik med inriktning mot matematisk analys. Tillträde snarast. Sökande skall kunna undervisa på både svenska och engelska. Sista ansökningsdag är den 1 november. Web-info: http://www3.lu.se/info/lediga/admin/document/3127-06.pdf.

22. Stockholms universitet söker en universitetslektor i matematisk statistik med inriktning mot försäkringsmatematik eller finansmatematik. Innehavaren av tjänsten förväntas bli en ledande person för masterutbildningarna i försäkringsmatematik och/eller finansmatematik och förväntas bidra aktivt till forskning och forskarutbildning i dessa ämnen. Kunskaper i svenska är ett krav. Sista ansökningsdag är den 20 oktober. Web-info: http://www.su.se/pub/jsp/polopoly.jsp?d=858&a=8389.